REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Applicants thank the Examiner for total consideration given the present application. Claims 1-23 were pending prior to the Office Action. No claims have been added through this reply. No claims have been canceled through this reply. Therefore, claims 1-23 are pending. Claims 1, 14, 18, and 20-22 are independent. Applicants respectfully request reconsideration of the rejected claims in light of the remarks presented herein, and earnestly seeks a timely allowance of all pending claims.

Claim Rejection - 35 U.S.C. § 112, second paragraph

The Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, for allegedly "being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." More specifically, the Examiner asserts that the "claimed limitation of 'the door starts to be opened' is unclear because it raises the question: is the door opened to a certain position or has the user merely placed a hand on the door to be opened?" (See Office Action, page 2, section 2.) Therefore, the Examiner asserts that claim 1 is allegedly unclear because there may be multiple interpretations as to when "the door starts to be opened." Applicants respectfully traverse this rejection.

MPEP 2173.04 states:

> "Breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph. Undue breadth of the claim may be addressed under different statutory provisions, depending on the reasons for concluding that the claim is too broad....If the claim is too broad because it reads on the prior art, a rejection under either 35 U.S.C. 102 or 103 would be appropriate."

Therefore, it is respectfully submitted that the Examiner is confused between the breadth of scope and indefiniteness. The Examiner has improperly rejected the expression "when the door starts to be opened" because it may include more than one interpretation as to when the

door starts to be opened. However, according to MPEP 2173.04, Applicants may claim subject matter broadly while the broad recitations are clear. Claim 1 clearly illustrates that the blowing unit blows air when the door starts to be opened. Applicants have provided numerous examples for when the door starts to be opened, *i.e.*, a signal is transmitted to a control device, a user grips a handle and a latch lever is unlocked. (See specification, paragraph 87.) Therefore, while the claimed feature of "when the door starts to be opened" may be alleged by the Examiner to be allegedly broad, it is clear to one ordinarily skilled in the art as to the occurrences of "when the door starts to be opened." Thus, according to MPEP 2173.04, 35 U.S.C. 112, second paragraph, rejection is not proper; but "[i]f the claim is too broad because it reads on the prior art, a rejection under either 35 U.S.C. 102 or 103 would be appropriate." Therefore, Applicants respectfully requested that the outstanding rejection be withdrawn.

However, in order to move prosecution forward, Applicants have amended independent claim 1 by replacing the expression of "when the door starts to be opened" with the expression of "when the door is opened." The record should show that the claims have been amended merely to address informal issues and to enhance clarity. It is intended that the scope of the claims remain substantially the same. More specifically, both claimed expressions ("when the door starts to be opened" and "when the door is opened") support a state in which the door is completely opened and a state in which the door is slightly opened. Applicants respectfully submit that the amendments made to the claims do not add any new matter to the application and they are not narrowing, and are not made for a reason relating to patentability. Accordingly, it is submitted that these amendments do not give rise to estoppel and, in future analysis, claims 1, 11, and 14 are entitled to their full range of equivalents.

Thus, based on these amendments, it is respectfully requested that the outstanding rejection be withdrawn.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 1-5 and 11-13 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable by Lubrina et al. (U.S. Patent Publication No. 2002/0179588) in view of Chandler et al. (U.S. Patent No. 6,874,331). Claims 6-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable by Lubrina in view of Chandler and in further view of Han et al. (U.S.

Patent No. 6,414,287). Claims 8-10 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable by Lubrina in view of Chandler and in further view of Austin et al. (U.S. Patent No. 6,561,180). Applicants respectfully traverse these rejections.

Argument 1 of 2: Features of claims 1, 14, 18, and 20-22 not disclosed by cited prior art

Independent claims 1, 14, 18, and 20-22 have been amended to include and additional limitations. More specifically, independent claim 1 as amended recites, *inter alia*, "a door which is pivotably hinged in a bottom part or top part of a casing for housing the heating chamber and with which the opening is opened and closed;...a blowing unit that blows air so that the air passes the opening **sideways and parallel to a rotation axis of the door** when the door is opened, and the blowing unit **blowing the air only across a part of the opening above a center thereof**." *Emphasis added.*

Lubrina discloses an oven in which cold air is introduced into the interior space to cool it. (See Lubrina, Figure 1 and at least paragraphs 43-44.) Chandler discloses a device applicable to refrigerators and the like wherein, to prevent cold air in the interior space from escaping out of it, and to prevent warm air outside from entering it, when the door is opened, cold air is blown to the doorway. (See Chandler, Abstract and "background of the invention" section.) In Chandler's device (as shown in Figures 1, 3, 5, 11, *etc.*), cold air is blown to the opening formed when the door is opened in such a way that the air passes the opening sideways in the left/right direction. In view of this, the Examiner asserts that combining Lubrina and Chandler makes obvious the heat-cooking apparatus recited in independent claim 1 of the present application wherein "when the door is opened, air is blown so as to pass the opening sideways." The Examiner applies the same reasoning to the other independent claims of the present application, namely independent claims 14, 18, and 20-22.

However, in Chandler's device, the direction in which cold air is blown across the opening is perpendicular to the rotation axis of the door. Accordingly, combining Lubrina and Chandler will result, for example in the case of a heat-cooking apparatus in which the door opens vertically (the rotation axis of the door being horizontal), in a construction in which cold air is blown so as to pass the opening in the direction perpendicular to the rotation axis, namely the up/down direction. Thus, combining Lubrina and Chandler will not result in a heat-cooking

apparatus with a vertically-opening door wherein the direction in which air is blown across the opening is parallel to the rotation axis of the door, and therefore does not make the construction of the claimed invention obvious.

In the heat-cooking apparatus of the present invention, the relationship between the direction of the rotation axis of the door and the direction in which air is blown across the opening is defined for the reasons stated below.

In a heat-cooking apparatus with an upward-opening door (the rotation axis of the door being horizontal), when the door is rotated and opened, the superheated steam inside the heating chamber blows out of it through its opening frontward (toward the user). At this time, if air is blown in a direction (for example, from top down) perpendicular to the rotation axis across the opening of the heating chamber, the superheated steam directly hits the user standing in front of the heating chamber, and the user may get burnt.

By contrast, in the claimed invention, in a construction with an upward-opening door (the rotation axis of the door being horizontal), when the door is rotated and opened, cold air passes the opening parallel (for example, from right to left) to the rotation axis of the door; thus, when the door is opened, the path along which the superheated steam tends to blow out frontward can be deviated into the direction in which cold air passes (the direction parallel to the rotation axis). In this way, the superheated steam can be prevented from directly hitting the user present in front of the appliance, and it is thereby possible to provide an appliance with more attention paid to user safety. (See specification, at least paragraphs 16 and 152.).

In particular, by releasing air only across an upper part (a part above the center) of the opening, it is possible to prevent the superheated steam, which tends to concentrate in an upper part of the interior space, from being blown out of it. That is, it is possible to obtain the above-mentioned benefits efficiently and surely through the blowing of a minimal necessary amount of cold air. (See specification, paragraph 123). Incidentally, in the claimed invention, the superheated steam in the interior space may be blown out of it; the superheated steam has only to be deviated sideways so as not to reach the user in front.

Therefore, Chandler fails to disclose at least the following features of the claimed invention:

i. The direction in which air is passed is parallel to the rotation axis of the door;

ii. The door opens vertically; and

iii. Air is blown only across a part of the opening above its center.

Further, Lubrina fails to make up for the deficiencies of Chandler. Therefore, independent claim 1 as amended is submitted to be allowable over Lubrina and Chandler for at least the above reasons.

Independent claims 14, 18, and 20-22 are allowable for similar reasons as set forth above in reference to independent claim 1.

Dependent claims 2-13, 15-17, 19, and 23 are allowable for the reasons set forth above with regards to claims 1, 14, 18, and 22 at least based on their dependency on claim 1, 14, 18, and 22.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-23 under 35 U.S.C. § 103(a).

Reconsideration and allowance of claims 1-23 are respectfully requested for at least the above reasons.

Argument 2 of 2: Features of claims 6-7 not disclosed by cited prior art

Dependent claim 6 recites, *inter alia*, "the blowing unit has a cooling fan for cooling a power supply circuit board provided inside the apparatus, and the blowing unit blows, air sucked in from outside the apparatus by the cooling fan so that air passes the opening sideways." Dependent claim 7 recites, *inter alia*, "the blowing unit includes a deflecting unit that deflects the air sucked in by the cooling fan to blow the air so that air passes the opening sideways."

The Examiner relies on Han for allegedly disclosing the features of dependent claims 6-7.

Han discloses a microwave oven in which outside air is introduced into it by a cooling fan to cool a circuit board inside. (See Han, column 4, lines 9-21). However, in Han, the cooling fan is used exclusively to cool the circuit board. That is, what Han discloses is not a construction in which air sucked in by a cooling fan is also used to blow air across the opening, much less a construction in which air sucked in by a cooling fan is deflected to be directed across the opening. Thus, Han fails to disclose the claimed invention of dependent claims 6-7. Lubrina and Chandler fail to make up for the deficiencies of Han.

Therefore, dependent claims 6-7 are submitted to be allowable over Lubrina, Chandler, and Han for at least the above reasons.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 6-7 under 35 U.S.C. § 103(a).

Reconsideration and allowance of claims 6-7 are respectfully requested for at least the above reasons.

Conclusion

Therefore, for at least these reasons, all claims are believed to be distinguishable over the combination of Lubrina and Chandler, individually or in any combination. It has been shown above that the cited references, individually or in combination, may not be relied upon to show at least these features. Therefore, claims 1-23 are distinguishable over the cited references.

In view of the above remarks, it is believed that the pending application is in condition for allowance.

Applicants respectfully request that the pending application be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Aslan Ettehadieh Reg. No. 62,278 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

By 

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